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AUTHOR Pigge, Fred L.; Marso, Ronald N.
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ABSTRACT

This study was designed to ascertain whether differences existed between the academic, affective, and personal characteristics of teacher education persisters and nonpersisters. The subjects were comprised of a longitudinal sample of approximately 550 teacher candidates entering teacher training at one institution (Bowling Green State University, Ohio). After 5 years from the commencement of their training it was found that 357 (65 percent) of these individuals had persisted through their teacher training and that attrition from teacher training generally increased the quality of the remaining pool of teacher candidates. Persisters as compared to the nonpersisters upon entrance into teacher training had earned higher university grade point averages, developed higher levels of basic academic skills, expressed fewer concerns about the task of teaching, and reported a more positive attitude toward teaching as a career. (Author)

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A Longitudinal Comparison of the Academic, Affective, and Personal Characteristics of Persisters and Nonpersisters in Teacher Training

Fred L. Pigge and Ronald N. Marso
College of Education and Allied Professions
Bowling Green State University
Bowling Green, Ohio 43403

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of the American Educational Research Association

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Abstract

This study was designed to ascertain whether differences existed between the academic, affective, and personal characteristics of teacher education persisters and nonpersisters. The subjects were comprised of a longitudinal sample of approximately 550 teacher candidates entering teacher training at one institution. After five years from the commencement of their training it was found that 357 (65%) of these individuals had persisted through their teacher training and that attrition from teacher training generally increased the quality of the remaining pool of teacher candidates. Persisters as compared to the nonpersisters upon entrance into teacher training had earned higher university grade point averages, had developed higher levels of basic academic skills, had expressed fewer concerns about the task of teaching, and had reported a more positive attitude toward teaching as a career.

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A Longitudinal Comparison of the Academic, Affective, and Personal Characteristics of Persisters and Nonpersisters in Teacher Training

The research literature indicates that education has been less effective than other professional fields in attracting its share of academically talented candidates and that the intellectual quality of those who choose to enter and remain in teaching may be declining (e.g., Chapman, 1983; Heyns, 1988). Some factors which appear to influence the intellectual quality of the teaching talent pool include the impact of student transfers into and out of teacher education programs (Marso & Pigge, 1991; Schlechty & Vance, 1981); the perception of teaching as less than an ideal career as evidenced by higher socioeconomic class families tending to counsel their offspring not to become teachers, or if these higher socioeconomic class individuals do become teachers they are more likely to leave the teaching profession (Bloland & Shelby, 1980); and, similarly, the academically very capable high school graduates tend to be less attracted to and are less likely to be encouraged to enter teacher training, and the more capable who become teachers are more likely to leave the teaching profession than are their less capable cohorts (Chapman & Hutcheson, 1982; Schlechty & Vance, 1983).

Weaver (1983) maintains that an individual's marketability is the foremost influence upon his or her recruitment to and attrition from the teaching profession. He argues that teachers with talent are more likely to find more lucrative employment out of the profession, and he further suggests that increased career opportunities for women and minorities and the declining attractiveness of schools as a work place are having major detrimental impacts upon the talent level of those in the teaching pool.

In contrast to Weaver's focus just upon marketability, Chapman (1983) has developed a theoretical model suggesting that the quality of the teaching talent pool and attrition from teaching is infuenced by a number of factors. Further, his research of this model has revealed that many factors such as the teacher candidates' personal characteristics, initial commitment to teaching, educational preparation, successful integration into teaching, career satisfaction, and the quality of the candidates' first employment placement concomitant with external employment climate are associated with entry to and attrition from the teaching profession (Chapman, 1984; Chapman & Green, 1986; Chapman & Hutcheson, 1982).

Relative to factors associated with entry to the teaching profession, Villeme and Hall (1980) found that those teacher candidates with a more positive attitude toward teaching and with higher grade point averages were more likely to enter the teaching field; further they found no difference between ACT scores for those candidates entering or not entering the teaching field. And Chapman (1984) found that teacher candidates' initial commitment to teaching was a good predictor of job entry and retention and that quality of the first-year teaching experience was a good predictor of retention. He also noted that neither teacher candidates' university grade point averages nor their perceptions of the adequacy of their teacher training were good predictors of teacher retention.

Relative to attrition from the teaching profession, a recent large national longitudinal study of individuals prepared to be teachers reported by Heyns (1988) indicates that teacher attrition has decreased in the last decade, that

attrition has not decreased the ability and qualifications of those teaching, that former teachers are more likely to have left advantaged rather than problemed schools, and that teaching is a high mobility profession characterized by high rates of attrition, delayed job entry, job re-entry, and member perceptions of teaching as a stepping stone to other careers. Indicative of the teaching profession's mobility, Heyns noted that between 1976 and 1986, approximately 25% of those completing teacher training never entered the teaching field, nearly one-third of those teaching in 1986 first began teaching four or more years after completing their training, about 45% who started teaching were no longer teaching in 1986, and almost one-third of those teaching in 1986 had taken a break of a year or more from teaching.

Heyns further described attrition from teaching as being most likely to occur for male higher socioeconomic secondary teachers during their first three or four years of teaching. She also noted that those leaving teaching tend to score higher on standardized tests, but continuing teachers are more likely to have earned higher grades in both high school and college and to have completed more graduate level training and advanced degrees. Contrary to prevailing assumptions about teacher attrition, Heyns found that many who had left teaching were satisfied or very satisfied with teaching (58%), that attrition rates were higher for teachers in private and advantaged public schools than for public and problemed schools, and that many of those teachers who were satisfied with teaching when leaving hoped to return to teaching at some future time (44%).

The present research literature indicates that male teachers, secondary school teachers, teachers with higher socioeconomic backgrounds, teachers with more marketable training and abilities, and those with less initial commitment to teaching are less likely to enter the teaching profession and, if entering teaching, are more likely to leave. This literature further indicates that attrition may or may not adversely affect the capability of the pool of teachers remaining in the field. Whether or not teacher quality is influenced by attrition appears to depend upon what quality or ability is considered, the particular teachers studied, and whether mobility factors such as initial job entry, delayed entry, and re-entry are considered. The existing research literature, however, provides little insight into the question of whether or not attrition during teacher training has a negative impact upon the quality of the pool of teacher candidates who eventually become prepared to enter teaching.

The purpose of the present study was to determine whether differences existed between selected academic, affective, and personal characteristics of persisters and nonpersisters in a sample of approximately 550 teacher candidates. The basic objectives underlying the study were to determine whether the more capable teacher candidates persisted through teacher training and to determine in what ways, if any, those individuals discontinuing teacher training differed from those who persisted through their training. More specifically, this study was designed to test the conjecture commonly noted in the educational literature that attrition from teacher training adversely affects the academic and affective quality of the available pool of individuals prepared to be teachers.

Methods and Procedures

The subjects for the present study consisted of 550 teacher candidates entering teacher training at Bowling Green State University during 1985. This

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sample, appearing to possess characteristics similar to other samples of teacher candidates described in the educational literature, was predominately composed of females (80%), of graduates from small to medium size high schools (88% with graduating classes of fewer than 500) located in rural or suburban communities (87%), of individuals from families of teachers (59%) in the present or immediate past generation, of children from somewhat larger families (70% with two or more siblings) with parents of somewhat limited higher education (nearly two-thirds of the parents did not have four-year college degrees), of individuals almost certain or certain of wanting to be teachers (85%) who were very confident of becoming effective teachers (75%) and who had decided early about wanting to become teachers (75% had decided to become teachers prior to high school graduation).

Various academic, affective, and personal characteristics were collected from the 550 teacher candidates shortly after they registered for a required initial education class during 1985. Five years later (spring of 1991), the records of these individuals were checked to determine whether or not they had completed student teaching at this university. Those who had completed their student teaching requirements were classified as persisters through teacher training, and those who had not were classified as nonpersisters.

The academic characteristics gathered from the entering teacher candidates consisted of their American College Test (ACT) composite scores if in their academic records, university grade point average earned prior to beginning teacher preparation, and composite scores from the Comprehensive Test of Basic Skills (CTBS). The personal characteristics gathered from these prospective teachers were gender, whether or not their fathers or mothers were teachers, when they made the decision to become teachers (elementary grades, prior to high school graduation, or after graduation), their planned level of teaching (elementary or secondary), the extent of their teaching-like experiences prior to teacher training, their level of assurance about becoming a teacher (a single five-point scale item with responses from very certain '1' to very doubtful '5'), and self ratings of their expected effectiveness as future teachers (a single eight-point scale item with responses from not effective at all '0' to truly exceptional '7').

The affective characteristics gathered from these prospective teachers consisted of their scores on The Teacher Concerns Questionnaire (George, 1978), The Attitude Toward Teaching as a Career Scale (Merwin & Divesta, 1959), and The Teaching Anxiety Scale (Parsons, 1973). The concerns instrument consists of 15 items with five items on each of the self, task, and impact scales. The response scale for each item is a continuum from not concerned '1' to extremely concerned '5'. The attitude instrument contains 11 items each of which is answered on a response format ranging from strongly disagree '1' to strongly agree '6' with higher scores indicating a more positive attitude. The anxiety measure consists of 29 items with a response continuum from never '1' to always '5' with higher scores indicating more anxiety about teaching.

Multiple analysis of variance (MANOVA) procedures were used to determine whether or not statistically significant differences existed between the persisters and nonpersisters for each of the sets of affective, personal, and academic characteristics interval score data. When a MANOVA 'F' value (Wilk's) was significant at $p < .05$, appropriate univariate ANOVA tests were run in order to ferret out on which criterion variables persisters and nonpersisters

differed. In addition, chi-square analyses were used to ascertain whether or not differences were statistically significant between persisters and nonpersisters on the several sets of personal characteristics data which were categorical in nature.

Findings

The analyses of the data gathered from the persister and nonpersister teacher candidates revealed statistically significant differences between the two groups for just one of the eight personal characteristics, extent of the prospective teachers' assurance about becoming a teacher, for two of three academic characteristics, grade point average and basic academic skills, and for two of the five affective characteristics, concerns about adequately performing the task of teaching and attitude toward teaching as a career. Statistically significant differences were not found between the persisters and the nonpersisters for the personal characteristics of gender, whether or not parents were teachers, when the decision was made to teach, planned level (elementary or secondary) of teaching, extent of teaching-like experiences prior to training, and perceived level of effectiveness as future teachers. Similarly, significant differences were not found between the ACT mean scores of the persisters and nonpersisters and between the mean scores of the persisters and nonpersisters from the anxiety about teaching, self concerns (concerns of surviving as a teacher), and impact concerns (concerns of really helping pupils) measures.

The comparison between the persisters and the nonpersisters in their level of certainty about the decision to become teachers resulted in a chi-square of 8.43 with $p = .015$. The persisters as compared to the nonpersisters were more assured about the decision to become teachers as revealed by their responses at the three higher points of the assurance scale: very certain 51% and 43%, almost certain 40% and 40%, and fifty/fifty 9% and 17%, respectively.

The MANOVA completed on the set of academic scores resulted in an F value of 5.87, $p = .001$ (Wilk's criterion). The univariate ANOVA tests as shown in Table 1 revealed statistically significant mean differences between the persisters and nonpersisters for the CTBS scores and GPA's but not for the ACT scores. The prospective teachers persisting through teacher training scored higher on both of these academic quality indices. The mean GPA's were 2.54 for the nonpersisters and 2.74 for the persisters ($F = 8.14$, $p = .005$), and the CTBS means were 171.39 for the nonpersisters and 180.83 for the persisters ($F = 7.17$, $p = .008$). The ACT means were 20.56 for the nonpersisters and 20.88 for the persisters ($F = 0.43$, $p = .51$).

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Insert Table 1 about here
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The MANOVA F related to the group differences for the five affective variables was 2.77, $p = .017$. Subsequent analyses revealed two statistically significant univariant differences between score means for the persisters and nonpersisters. These differences as reported in Table 2 were for the teaching task concerns with means of 12.50 for the nonpersisters and 11.78 for the persisters ($F = 4.782$, $p = .03$), and for attitude toward teaching with a mean of 49.82 for the nonperisters and a mean of 51.54 for the persisters ($F = 9.32$,

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$p = .002$). The differences between the anxiety, self concerns, and impact concerns score means for the two groups were not statistically significant.

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Insert Table 2 about here
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Summary and Discussion

The comparisons between the persisters and the nonpersisters in the longitudinal sample of 550 teacher candidates revealed that those candidates who persisted through teacher training as compared to their nonpersisting cohorts had higher university GPA's, higher levels of basic academic skills, reported less concern about adequately performing the task of teaching, had a more positive attitude toward teaching as a career, and expressed more assurance about their decision to become teachers upon entrance to teacher training. The persisters and the nonpersisters did not differ one from the other in the following personal characteristics selected for study: gender, whether or not their fathers or mothers were teachers, the time of their decision to become teachers, extent of teaching-type experiences, planned grade level of instruction, and their own anticipated level of success as future teachers. Similarly, the persisters and nonpersisters did not differ one from the other in their levels of anxiety about teaching, academic aptitude (ACT), self concerns of surviving as a teacher, and concerns of their impact on pupils.

The findings in the present study tended to refute the conjecture commonly noted in the educational literature that attrition from teacher training adversely affects the academic and affective quality of the available pool of those individuals prepared to be teachers. The teacher candidates who persisted through teacher training were found to be somewhat more academically capable than those who had not completed their student teaching five years after entering teacher training. Upon entrance to teacher training the persisters as compared to the nonpersisters had earned higher grades at the university and had higher levels of basic academic skills (CTBS) while having a comparable level of academic aptitude (ACT). Further, the persisting teacher candidates had reported a greater assurance about their decision to teach, had expressed less concern about the task of teaching, and had reported more positive attitude about teaching as a career as they began their teacher training than did their nonpersisting cohorts. Each of the personal, academic, and affective differences noted between the two groups of teacher candidates suggests that attrition during teacher training enhanced rather than decreased the quality of the pool of available teachers.

The finding of higher academic performance of the persisting teacher candidates in the present study appears to be related to the findings from Heyn's (1988) longitudinal study of inservice teachers. She reported that teachers remaining in the teaching field had earned higher university and high school grades and had completed more graduate course work than had those individuals leaving teaching. Similarly, the finding in this study that the persisters reported greater assurance in their decision to become teachers and less concern about the task of teaching than did their nonpersisting cohorts appears to be related to Chapman's (1984) finding that teacher candidates' initial commitment to teaching is a good predictor of job entry and teacher retention. Further, the findings of Villeme and Hall (1980) of no difference in

ACT scores but higher grade point averages and more positive attitudes toward teaching of those teacher candidates entering as compared to those not entering the teaching field appears consistent with the findings of the present study.

The findings of the present study related to questions of teacher quality and attrition, however, must be interpreted with caution due to limitations in both study focus and design. Teacher candidate persisters and nonpersisters were studied over a limited time, although a rather liberal five-year period, and the persistence criterion was limited to completion of teacher training. The candidates classified as nonpersisters may have completed or may complete their teacher training at a later time and/or at other institutions; conversely, some of the candidates classified as persisters at this point in time may never enter the teaching field or may leave teaching early. And as indicated before, the sample studied, although a relatively large sample of teacher candidates possessing rather typical teacher candidate characteristics and attending a large teacher preparation institution serving a rather large regional community, was limited to a one year class of entering teacher candidates attending a single institution.

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Table 1

Academic Characteristics of Peristers and Nonperisters through Teacher Training

Measure	Persisters $\bar{X}$ (n=236)	Nonpersisters $\bar{X}$ (n=113)	Univariate* F-value	p
Composite ACT	20.88	20.56	0.43	.513
Composite CTBS	180.83	171.39	7.17	.008
College GPA	2.74	2.54	8.14	.005

*Multivariate F (Wilk's) test for no overall group effect for the three dependent variables, F = 5.87, p = .001.

Table 2

Affective Characteristics of Peristers and Nonperisters through Teacher Training

Measure	Persisters $\bar{X}$ (n=356)	Nonpersisters $\bar{X}$ (n=192)	Univariate* F-value	p
Concerns				
Task	11.78	12.50	4.72	.030
Self	16.06	16.07	0.00	.983
Impact	18.69	18.67	0.00	.945
Attitude	51.54	49.82	9.32	.002
Anxiety	70.60	71.69	1.32	.251

*Multivariate F (Wilk's) test for no overall group effect for the five dependent variables, F = 2.77, p = .017.